



UNITED STATES PATENT AND TRADEMARK OFFICE

clb

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,508	03/30/2001	Rolland Versini	P20178	3512

7055 7590 10/04/2004

GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

TYLER, CHERYL JACKSON

ART UNIT PAPER NUMBER

3746

DATE MAILED: 10/04/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/674,508

Applicant(s)

VERSINI, ROLLAND

Examiner

Cheryl J. Tyler

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(h)(3) because the section views "F1-F1" and "F2-F2" should be designated by an Arabic or Roman numeral corresponding to the view number of the sectional view. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5-32 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: at least, the relationship between the two non-return valves; the inlet (to the motor? To the pump? Or to some other element?); the outlet (to the motor? To the pump? Or to some other element?); and the pressure limiting device.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 8-9, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tzeng et al. (6,171,071) in view of Sevrain et al. (5,096,390). Tzeng et al. teach a motor 70; a flow meter 80 coupled to one end of the motor; a cylinder block coupled to another end of the motor (unnumbered, but clearly illustrated in Figures 1-2); check valves 36,38 (corresponding to the claimed at least two non-return valves); a water inlet 41; a water outlet 43; a pressure relieving device (see column 2, lines 59-60 and column 3, lines 5-22). Tzeng et al. teach that the pressure relieving device is a duct 47 (corresponding to the claimed bore) that includes a calibrated

spring-biased plug 56 (corresponding to the claimed valve) that connects the water outlet to a base of the motor.

While Tzeng et al. teach most of the limitations of the claims, they do not explicitly teach that the motor 70 is an electromagnetic motor. Sevrain et al. teach an electromagnetic motor having a housing 40 (corresponding to the claimed main body); windings 36 (corresponding to the claimed coil); and movable post 56 (corresponding to the claimed hollow free piston). Sevrain et al. teach that it is desirable to use a magnetic motor in order to reduce the size of a pump/motor assembly and thus, provide a "highly compact, efficient, and reliable pump" (column 2, lines 34-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an electromagnetic motor, as taught by Sevrain et al., in the Tzeng et al. invention in order to advantageously reduce the overall size of the pump.

With regards to claim 10, Sevrain et al. do not explicitly teach that the housing is machined in a single piece and made of plastic. However, one of ordinary skill in the art at the time of the invention would have known to manufacture the housing in such a manner as to reduce manufacturing costs, and plastic is inexpensive to use.

With regards to claims 11-12, a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the structural limitations of the claims, as is the case here.

6. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tzeng et al. (mentioned previously), as modified by Sevrain et al. (mentioned

previously), in view of Onoda (4,265,127). While Tzeng et al., as modified by Sevrain et al., teach most of the limitations of the claims, they do not explicitly teach the details of the flow meter. Onoda teaches a flow meter having a fan wheel 3 (corresponding to the free bucket wheel) that includes an magnetic wire 6 whose movement is detected by a flow rate detector 8. Onoda teaches that such a flow meter enables small power consumption and a more accurate registering and displaying of fluid flow. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a magnetically driven flow wheel, as taught by Onoda, in the Tzeng et al., as modified by Sevrain et al. invention in order to advantageously provide an accurate flow measurement with little power consumption.

7. Claims 13-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tzeng et al., as modified by Sevrain et al., in view of Nishijyo (4,124,332). Tzeng et al., as modified by Sevrain et al., teach most of the limitation of the claims, except details of a pressure controller. Nishijyo teaches that it is desirable to have a pressure controller to prevent overloading of the pump. As illustrated in Figure 11, the pressure controller includes a chamber adapted to receive liquid flow; a diaphragm 45 (corresponding to the flexible membrane); an outlet orifice; an electric contact; a central passage; a fixed element; and an end piece. The use of the illustrated screw provides for a quick connection of the pressure controller. It would have been obvious to one of ordinary skill in the art to use a pressure controller, as taught by Nishijyo, in the Tzeng et al., as modified by Sevrain et al. invention in order to advantageously provide a means to prevent pressure overload of the pump.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- Pflieger (3,819,303) teach quick connections for a pressure controller to a pump.
- Nelson et al. (4,496,287) teach fluid sensors as known in the art.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl J. Tyler whose telephone number is 703-306-2772. The examiner can normally be reached on Monday-Thursday, 6:00 - 10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 703-306-2772. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cheryl J. Tyler
Primary Examiner
Art Unit 3746

CJT